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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,962	03/22/2001	Ljerka Kunst	4810-58563	1208

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KLARQUIST SPARKMAN, LLP
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EXAMINER

MCELWAIN, ELIZABETH F

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 12/26/2002

b

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)
	09/787,962	KUNST ET AL.
	Examiner	Art Unit
	Elizabeth F. McElwain	1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 October 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) _____ is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) 1-37 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

- 4) Interview Summary (PTO-413) Paper No(s) _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

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In view of applicants' response of October 8, 2002, the following lack of unity is set forth. Applicants response pointed out that the application was filed under 35 U.S.C. 371 and therefore U. S. restriction practice does not apply. Applicants also asserted that Unity of Invention was established in the International Stage of this application, and state that this is binding to subsequent National Stage applications. The Examiner maintains that the finding of Unity of Invention in the International Stage application is not binding in the National Stage application and that Lack of Unity is proper in the present case.

10

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

15

- I. Claims 1-14, 24-31 and 33 drawn to a nucleic acid coding sequence for KCS2 and plants transformed therewith.
- II. Claims 15-19 drawn to a KCS2 promoter sequence.
- III. Claims 20-23 and 37, drawn to a nucleic acid probe that has sequence similarity to a KCS2 genomic sequence and method of using said sequence to isolate a nucleic acid.
- IV. Claim 32, drawn to a KCS2 polypeptide.
- V. Claims 34-36, drawn to a KCS2 nucleic acid in antisense orientation and plants transformed therewith.

20

The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I is drawn to a nucleic acid coding sequence for KCS2 and plants transformed therewith. The promoter of Group II, the nucleic acid probe of Group III, the KCS2 polypeptide of Group IV, and the KCS2 nucleic acid in antisense of Group V, each do not share a special technical feature with the coding sequence of Group I, and neither do they share a special technical feature one to each of the others.

According to the PCT Administrative instructions, for molecules to be of similar nature, they need to share a common property or activity. The coding sequence of Group I, the promoter of Group II, and the KCS2 polypeptide of Group IV do not share a common structure or common function one with either of the others. In addition, the polynucleotide of Group I, the nucleic acid probe of Group II, and the antisense nucleic acid of Group V do not share a common core structure and a common property or activity with either of the others, wherein the nucleic acid probe of Group II and the antisense nucleic acid of Group V do not encode a KCS2 polypeptide and are structurally and functionally different one from the other.

Furthermore, the relationship of polypeptides of Group IV and the polynucleotides of Group I, does not conform with Example 17 of the PCT Administrative Instructions. In Example 17, there exists a one-to-one relationship between the protein and the DNA molecules which encode the protein. Given a particular amino acid sequence, one can identify all the open reading frames which encode that molecule, due to degeneracy of the DNA code. The instant claims are written in the opposite format: DNA and the polypeptide encoded by said

DNA. In view of the presence of different reading frames, different potential start sites, different splice sites, etc, one cannot identify all of the protein molecules which will be encoded by the claimed DNA. A second important distinction between the instant claims and those in Example 17 is that the instant claims are not directed to a single molecule, but

5 encompass a family of molecules, including molecules the will hybridize or have a certain percentage sequence identity. In addition, the polynucleotides of Groups II, III and V do not encode the protein of Group IV. For these reasons, there is no shared technical feature between the polynucleotides of any of Groups I-III and V and the polypeptides of Group IV.

Therefore, each of Groups I-V are drawn to a different product, which do not share a
10 special technical feature one with each of the others.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the requirement for different areas of search, restriction for examination
15 purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention,
20 the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth F. McElwain whose telephone number is (703) 308-1794. The examiner can normally be reached on Tuesday through Friday from 7:30 AM to 5:00 PM. The examiner can also be reached on alternate Mondays.

10 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218. The fax phone number for this Group is (703) 308-4242. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

15 Any inquiry of a general nature or relating to the status of this application should be directed to the legal analyst, Gwendolyn Payne, whose telephone number is (703) 305-2475, or to the Group receptionist whose telephone number is (703) 308-0196.

Elizabeth F. McElwain, Ph.D.
December 20, 2002